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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,245	12/15/2003	Toshihisa Nihei	117404	2276
25944	7590	08/09/2005	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			SCHWARTZ, CHRISTOPHER P	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/734,245

Applicant(s)

NIHEI ET AL.

Examiner

Christopher P. Schwartz

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-852)
- 6) ☐ Other: _____.

Christopher P. Schwartz
CHRISTOPHER P. SCHWARTZ
PRIMARY EXAMINER

DETAILED ACTION

1. Applicant's response filed 5/16/05 has been received and considered. Previously rejected claims 3,4 have been canceled and their limitations added to claim 1. Claims 1,2,5-20 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1,2,5-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sano '105 in view of Hirao et al. '909.

Regarding claims 1,2,5-20 Sano discloses a brake apparatus that uses target and actual wheel slip rates and target and actual yaw rates to control the braking stability of the vehicle. Please see cols. 1 and 2 and cols. 15-19. Note the target slip

rate correction process discussed in col. 2 and the yaw rate deviation calculation methods discussed in cols. 13+.

Sano lacks a specific discussion of making a first correction to the target slip rate such the actual yaw rate of the vehicle matches a target yaw rate.

However, as discussed in col. 1 Sano discloses a known technique in the prior art. Specifically "a first computing means for computing a first target braking force for controlling the actual kinetic value of the vehicle to match the target kinetic value and a second computing means for computing a second target braking force... to establish a predetermined slip to the wheels..." This portion of the patent goes on to say that upon cornering of the vehicle the braking forces are controlled such that the actual yaw rate matches a target yaw rate.

Lacking in the prior art devices up to this point, Sano states, was a way to control the yaw moment of the vehicle when it is also in anti-skid control.

Sano states at the bottom of col. 1 and over to col. 2 that a correction means for increasing the target slip ratio is provided "in accordance with yaw moment control of the vehicle".

The reference to Hirao et al. is also relied upon to provide a teaching of this known concept as discussed in cols 1-5, but particularly col. 4. As discussed in col. 4 lines 5-25 Hirao et al. calculates actual and reference yaw rates for the vehicle and includes a correction means for correcting a target slip rate based upon the difference in target and actual yaw rates and also teaches a correction limiting means which prevents

the aforesaid correction when the turn angle of the steering wheel is smaller than a predetermined value.

At pages 6 and 7 of their remarks applicant's seem to acknowledge that these facts are taught by the references above.

However, contrary to applicant's remarks, both references are related, in the broad sense, to vehicle stability control and therefore brake control.. Sano discusses ABS control in combination with the turning or yaw control of the vehicle and Hirao discloses literally the same thing. See col. 3 and 4 of Hirao. Note also the traction control system discussed on line 51 of col. 4. All of this can be said to be directed to braking control.

It would have been obvious to have incorporated the teachings of Hirao et al. '909 into Sano '105 simply as one well known alternative method of using target and actual slip/yaw rates to provide stability control through the adjustment, or correction and prevention thereof, of the braking forces (i.e. longitudinal forces) applied to the individual wheels to compensate for sudden changes in road surface conditions, encountered thereby, when the vehicle is in, or goes into, ABS/Stability control mode.

Although, as applicant's correctly point out, the correction prevention means to the target slip rate of Hirao is based upon the amount of steering angle, it would appear to some extent that applicant's is also, as stated on page 6 of their remarks.

Lastly, as applicant's have broadly claimed, it is unclear to the examiner what limitations in their claims, specifically, define over the combined teaching of the references above.

Response to Arguments

5. Applicant's arguments filed 5/16/05 have been fully considered but they are not persuasive. Applicant's arguments have been addressed in the action above.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

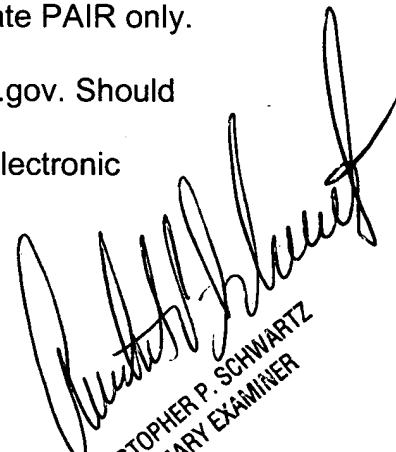
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Schwartz whose telephone number is 571-272-7123. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Bucci can be reached on 571-272-7099. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3683

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cps
8/6/05



CHRISTOPHER P. SCHWARTZ
PRIMARY EXAMINER